

of; whether air be mixed with, or necessary to, its formation; as also how far its power of resistance may reach; are probably not yet known, to a proper degree of exactness. Niewentit fixes the expansion of a cubical inch of water, converted into steam, at 13365, Dr. Defaguliers at 14000, and Mr. Payne at 4000 times. The great scope in this subject from a plenum to a vacuum, if I may be allowed the expression, as also the very useful purposes, to which it has already been, and possibly may be still further applied, will, I hope, be an inducement to those, who are much better qualified, to proceed in so useful an inquiry.

XLVI. *Observatio Eclipsis Lunæ Die 27 Martii, Ann. 1755. habita Ulissipone in Domo Patrum Congregationis Oratorii à Joanne Chevalier ejusdem Congregationis Presbytero, Regiæ Londinensis Societatis Socio, Regiæque Parisiensis Scientiarum Academiæ correspondente.*

Tubo optico 8 pedum perfecta est observatio cœlo fereno, claroque.

IMMERSIONES.

Hora postmeridiana
temporis veri.

		h	'	"
Read Dec. 8, 1757.	I Nitium penumb rædubium	10	29	50
	I Initium eclipsis dubium	10	33	35
Certe jam incæperat	— — —	10	34	05
Umbra ad mare humorum	— — —	10	44	00
			Umbra	

	^h	[']	^{''}
Umbra ad Grimaldum — —	10	44	53
Grimaldus totus in umbra ———	10	47	58
Mare humorum totum in umbra —	10	51	14
Thico incipit mergi — — —	10	53	29
Thico totus mergitur — — —	10	55	14
Umbra ad Reinholdum ———	11	08	04
Umbram ingreditur Copernicus —	11	19	22
Umbra ad mare nectaris ———	11	24	52
Totum in umbra — — —	11	33	50
Umbra ad mare tranquillitatis —	11	35	24
Promontorium acutum in umbra —	11	45	46

EMERSIONES.

	^h	[']	^{''}
Incipit emergere ab umbra Copernicus	12	04	38
Totus Copernicus extra umbram --	12	07	40
Incipit egredi Grimaldus ———	12	09	38
Totus Grimaldus extra umbram —	12	12	38
Incipit emergere mare fœcunditatis	12	31	37
Emergit mare humorum ———	12	36	11
Incipit emergere Capuanus ———	12	39	40
Egreditur Schicardus --- —	12	48	30
Emergit Thico — — —	12	51	40
Totum mare nectaris egreditur —	12	58	09
Finis eclipsis — — —	13	13	02
Finis penumbræ dubius ———	13	16	50